

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : RAMAJOIS, R. M.
Appl. No. : 10/766,917
Filed : January 30, 2004
Title : GEAR HOUSING VENT
Group Art Unit : 3682
Examiner : PILKINGTON, J.
Docket No. : 08200.809

REPLY BRIEF UNDER 37 C.F.R. § 41.37

May 27, 2008

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the Examiner's Answer mailed March 24, 2008, Appellant respectfully requests the Board of Patent Appeals and Interferences to consider the following additional arguments in response to the Examiner's Answer and reverse the decision of the Examiner in whole. The Commissioner is hereby authorized to charge applicant's deposition account no. 50-0548 for any fees necessary to maintain the pendency of this application.

REMARKS

The Examiner maintains the rejection of claims 1-2, 5-6 & 19 under 35 U.S.C. 103(a) as being unpatentable over Fukunaga in view of Azuma, and claims 7-10, 12 15-16 & 20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Azuma '118 in view of Fukunaga '203.

Regarding claim 1: The examiner erroneously alleges that applicant "appears to be basing the argument that one of ordinary skill would not add a hole to Azuma on the fact that the deflector in Azuma would cover the hole." In fact applicant's arguments are based on what the combined teachings of the references would have suggested to those of ordinary skill in the art.

Moreover, as stated in the Supreme Court decision of *KSR Int'l Co. v. Teleflex Inc.*: "patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already

known.” (Emphasis added) *KSR*, 550 U.S. ____ (Apr. 30, 2007), (slip. op. at pp. 14-15).

Contrary to the Supreme Court decision of *KSR*, the examiner simply states that “It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Fukunaga and provide a vent tube extending within said hollow casing so as to from a cavity between an inner peripheral surface of said casing and an outer peripheral surface of said vent, as taught by Azuma.” Thus, the examiner fails to explain the reasoning that leads to a legal conclusion of obviousness when rejecting claims on that ground. Clearly, the prior art provides no logical reason, suggestion or motivation to combine teachings of Fukunaga and Azuma.

As explained in Fukunaga, in breather plugs of the prior art, a ventilation operation cannot be fully effected due to an air space formed downstream of the deflector. See col. 1, lines 21-28. In order to solve this problem, Fukunaga provides the deflector 5 with a plurality of openings 55 and 55' that create a ventilation effect allowing a pressure difference between the inside and outside of the housing 1 to be maintained at a constant, small value. In other words, the goal of Fukunaga is to improve ventilation effect through the breather plug 4 thereof. Clearly, providing the breather plug of Fukunaga with the cylindrical plug body 18 of Azuma would create an obstacle in the way of the air exhausted to the outside of the housing 1 and reduce “ventilation effect” Fukunaga tries to produce. Fukunaga further discloses that “an amount of the lubricant 3 introduced into the interior of the deflector 5 via the opening 51 is maintained in the deflector 5 without being exhausted out of the cap 9” (see col. 3, lines 14-17), and that “Even if a small amount of the lubricant 3 leaks into the space,

the lubricant 3 is prevented from being exhausted from the device due to the ventilation effect as has been already described.” (see col. 3, lines 25-28). Thus, providing the breather plug of Fukunaga with the cylindrical plug body 18 of Azuma provides no apparent benefits to Fukunaga.

Therefore, the rejection of claim 1 under 35 U.S.C. 103 over Fukunaga in view of Azuma is improper, as the combined teachings of Fukunaga and Azuma would not have suggested to those of ordinary skill in the art to provide the breather plug of Fukunaga with the cylindrical plug body 18 of Azuma. The examiner's modifications to the cited references would result in “distortions caused by hindsight bias”. *KSR*, slip. op. at p. 1).

Regarding claim 7: The examiner erroneously alleges that since claim 7 does not require that the hole be in any particular location on the casing, one of ordinary skill in the art would indeed be motivated by Fukunaga to add a side hole at any location on the casing of Azuma, not the deflector, for the purpose of creating a ventilation effect. Applicant respectfully disagrees.

First, claim 7 requires at least one hole through a continuous side wall of the casing, anywhere in the casing as alleged by the examiner.

Second, the air-breather of Azuma is designed to be immersed in the oil bath (see col. 1, lines 39-42 and col. 3, lines 28-31), while the gear box breather of Fukunaga is designed to be mounted to the housing at the upper portion thereof, substantially above the oil level (see col. 2, lines 12-15 and Figs. 1-2).

Thus, if the deflector body 24 of Azuma is provided with at least one hole as taught by Fukunaga, as suggested by the Examiner, the hole would be immersed in the oil bath. As a consequence, the ventilation effect through the breather of Fukunaga would not be possible. Moreover, the oil would enter into the deflector body 24 and plug the inlet hole in the plug body 32. However, Azuma specifically discloses that “the baffle plate 40 effectively interrupts the flow of oil so that an air space 44 surrounding the opening 24A in the deflector 20 is formed on the downstream side of the baffle plate 40, so that the entry of oil into the deflector body 24 is prevented” (emphasis added). In other words, providing the deflector body 24 of Azuma with at least one hole as taught by Fukunaga, would effectively prevent functioning of the air-breather device 10 of Azuma as intended. Thus Azuma teaches directly away from the Examiners modification. Any combination of Azuma ‘118 and Fukunaga ‘203 would either lack the internal vent tube within the casing, or at least one hole through the sidewall of the casing.

Therefore, one of ordinary skill in the art therefore has no reason to arrive at the Examiner modifications as these references cannot be combined as Azuma teaches away from a hole through the sidewall of the deflector 20. Clearly, there is no reason why one of ordinary skill in the art would combine these references to arrive at the claimed embodiment absent intentional hindsight reconstruction of the disclosed invention.

As for the examiner’s allegation that the appellant argued that the references were non-analogous, the applicant respectfully disagrees. The applicant argued that the cited references, Azuma and Fukunaga, are designed to operate in different environments (the air-

breather of Azuma is designed to be immersed in the oil bath, while the gear box breather of Fukunaga is designed to be mounted to the housing at the upper portion thereof, substantially above the oil level) solely to prove that Azuma teaches directly away from the Examiners modification, and that the combined teachings of Fukunaga and Azuma would not have suggested to those of ordinary skill in the art to provide the air-breather of Azuma with the openings 55 and 55' of Fukunaga.

Regarding claims 3 and 11: As argued above regarding the patentability of claim 1, providing the breather plug of Fukunaga with the cylindrical plug body 18 of Azuma would create an obstacle in the way of the air exhausted to the outside of the housing 1 and reduce “ventilation effect” Fukunaga tries to produce. Fukunaga further discloses that “an amount of the lubricant 3 introduced into the interior of the deflector 5 via the opening 51 is maintained in the deflector 5 without being exhausted out of the cap 9” (see col. 3, lines 14-17), and that “Even if a small amount of the lubricant 3 leaks into the space, the lubricant 3 is prevented from being exhausted from the device due to the ventilation effect as has been already described.” (see col. 3, lines 25-28). Thus, providing the breather plug of Fukunaga with the beveled plug body of Azuma and Rodgers provides no apparent benefits to Fukunaga, but make the breather plug of Fukunaga more complex and expensive. In other words, there is no justification to support the Examiner’s reconstruction. There is simply no reason, absent applicant disclosure, why one of ordinary skill in the art would so combine these three distinct references to arrive at the claimed invention.

Regarding claims 13 and 17: As argued above regarding the patentability of claim 7, the baffle plate 40 of Azuma “effectively interrupts the flow of oil so that an air space 44 surrounding the opening 24A in the deflector 20 is formed on the downstream side of the baffle plate 40, so that the entry of oil into the deflector body 24 is prevented.” (Emphasis added) (See col. 3, lines 28-36). Therefore, there is no justification to support the Examiner’s reconstruction. There is no reason, absent applicant disclosure, why one of ordinary skill in the art would so combine these three distinct references to arrive at the claimed invention.

Regarding claims 4, 14, and 18: The Examiner argues that “coextensive only means that objects must only share the same limits, boundaries or scope. In other words, if two objects or holes are located along the same member they are coextensive which leaves room for the holes in a prior art reference to be arranged in different radial or axial positions.” The examiner further notes that “It appears to the examiner that the applicant is intending to use the word coextending, but since the claim only recites coextensive, it is the examiner's position that Azuma in view of Fukunaga, in view of Rodgers and further in view of Terwoerdes renders the rejection of claim 4, 14 and 18 obvious.”

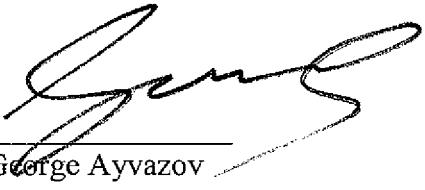
The Random House Webster’s College Dictionary (1999 Second Random House Edition), defines the word “coextensive” as “equal or coincident in space, time, or scope”. The same dictionary has no definition for the word “coextending”, however defines the verb “coextend” as “to extend equally through the same space or length of time”. The noun derived from the verb “coextend” according to the dictionary is “coextension”. In other word,

the meaning of the word "coextending" (if such a word existed) would be the same as the meaning of the word "coextensive". Moreover, claims 4, 14, and 18 recite two holes longitudinally coextensive along the first side portion of the casing. In other words, the examiner's interpretation of the hole arranged in different radial or axial positions is erroneous.

Therefore, the rejection of claims 4, 14, and 18 under 35 U.S.C. 103 is improper

In view of the above reasons, it is respectfully submitted that this application is in condition for allowance, and the rejection of claims of the present invention should be overruled.

Respectfully submitted:
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